

Kennecott Minerals Company
A Division of Kennecott Corporation

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Robert A. Malone
Director, Environmental Affairs
March 13, 1986

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DIVISION OF
OIL, GAS & MINING

Kennecott

Mr. Lowell P. Braxton
Administration
Mineral Resource Development
and Reclamation Program
Division of Oil, Gas and Mining
Utah Department of Natural Resources
365 West North Temple
Three Triad Center, Suite 350
Salt Lake City, Utah 84189

SUBJECT: Utah Copper Division Modernization Project

Dear Mr. Braxton:

Enclosed are the following items required by the Division of Oil, Gas and Mining for final permit approval of Phase I of the Utah Copper Division Modernization Project.

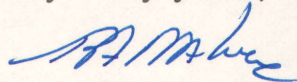
- o Reclamation Surety (MR-Form 5) for \$86,860.
- o Reorganized Permit Application Package.

Kennecott agrees to Stipulation M-3(2)(e)-Lk,JL, which states:

Kennecott will consult with the Division of Oil, Gas and Mining to finalize specific details and time frames for the test plot program by July 1, 1986. Should results of the test plot program prove unsatisfactory, Kennecott will obtain and augment the disturbed sites with suitable substitute soil resources or provide alternative measures to assure compliance with state reclamation laws and regulations.

Please contact Mr. Al Trbovich if you require additional material for permit finalization.

Very truly yours,



R. A. Malone

RAM:mf
Enclosure

cc: V. R. Rao, w/enc.
S. D. Taylor, w/enc.
A. M. Trbovich, w/enc.
J. B. Winter, w/enc.

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REORGANIZED PERMIT APPLICATION PACKAGE
UTAH COPPER DIVISION MODERNIZATION PROJECT
PHASE I - GRINDING PLANT AND ACCESS ROAD SITE GRADING

Introduction and General Information

On December 2, 1985, Kennecott applied to the Utah Division of Oil, Gas and Mining (DOGM) for amendment of our existing mining and reclamation plan for the Utah Copper Division operation. The proposed changes reflect Kennecott's plans to modernize the Utah facilities by installing inpit ore crushing, conveying of crushed ore to a new grinding plant approximately one mile north of Copperton, the grinding plant, a pipeline to transport the ground ore to our existing Magna and Arthur flotation facilities and a second pipeline to return process water to the grinding plant.

In order to expedite the permitting process, DOGM split the project into two phases: Phase I, the first to be permitted, consists of site grading the grinding plant area and construction of an access road into the grinding plant site. Phase II consists of the remainder of the project. Since the December 2, 1985, submission, several other packages of information regarding the Phase I plans have been submitted to DOGM. After review of this information and negotiations with Kennecott, the Phase I plans were tentatively approved on February 14, 1986. As a condition for final approval, DOGM is requiring Kennecott to submit a summary package of the Phase I plans. This document fulfills this requirement. All of the information presented in this summary has been previously reviewed and approved by DOGM. No new information is presented. The sole purpose of this document is to provide an easily readable presentation of Kennecott's Phase I plans.

Site Location and Conditions

The Utah Copper Division grinding plant will be located in the SW $\frac{1}{4}$ of Section 5 and the SE $\frac{1}{4}$ of Section 6, T3S, R2W, SLBM. The private access road to the site will leave State Highway 48 and traverse Section 8 and Section 5, T3S, R2W, SLBM. Site grading for the access road and grinding plant will involve 298,000 cubic yards of fill and 557,000 cubic yards of cut. Excess cut will be used as fill in Phase II, and will balance over the entire scope of the project. Drawing 712-C-120, (Concentrator Site, Mass Earthwork Schematic, enclosed) defines the grinding plant area to be disturbed. Drawings 740-C-101, 740-C-102, 740-C-103, 740-C-104 and 740-C-105 (Plant Access Road Plan and Profile, sheets 1 through 5, enclosed) define the access road. The road right-of-way is 200 feet wide. The total area of the grinding plant site and access road is 163 acres. The entire area is owned by Kennecott.

Soil Conservation Service Survey maps (Figures 1 and 2) which delineate the grinding plant site and access road are enclosed. Detailed geotechnical information is included in the previously submitted Final Geotechnical Investigation Report, Volumes I and II, and will not be repeated here.

The area to be disturbed currently consists of undeveloped land used for agricultural purposes. There are no existing structures on the site, including no previously active or inactive, surface or underground mined areas. Miscellaneous debris gathered during construction will be removed to the Salt Lake County Trans-Jordan landfill near Lark.

During construction, warning signs will be posted at all natural ingress points to the site to prevent public access. After construction is completed, the grinding plant site will be fenced. Warning signs will be posted every 500 feet and at all natural ingress points. The signs will be approximately 10 inches by 20 inches and will say "Kennecott Property, No Trespassing, Violators will be Prosecuted."

Final Reclamation Plan

The final reclamation plan involves returning the site to native vegetation or the equivalent. Following permanent closure of the Kennecott facilities, usable equipment will be salvaged and sold. The time necessary to complete this process is very difficult to forecast because of the highly variable used equipment market. Two years is estimated. Following sale of salvageable equipment, the surface structures at the site will be razed. Whenever possible salvageable material will be sold as scrap for recycle. Otherwise the material and debris will be removed to an approved solid waste landfill. This step is expected to require two years. After razing, foundations will be broken apart, removed and/or buried. Parking and driving surfaces will be removed. The site will then be regraded and compacted areas will be ripped to 12 inches. This step is expected to require one year. During the first October following the completion of regrading the site will be planted.

Kennecott will not store any first horizon soil for final reclamation use. Instead, following construction, Kennecott will establish a test program to determine techniques for best reclaiming the second horizon soil to a

TABLE 1

Post-Construction Seed Mixture

<u>Species</u>	<u>Quantity (Pls Lb/Acre)</u>
Thick Spike Wheat Grass	0.75
Tall Wheat Grass	2.0
Intermediate Wheat Grass	4.0
Streambank Wheat Grass	1.0
Siberian Wheat Grass	1.75
Western Wheat Grass	0.5
Slend Wheat Grass	3.0
Pubescent Wheat Grass	5.0
Sheep Fescue	0.5
Range Alfalfa	2.0
Sweet Yellow Clover	2.0
Total Seed	22.5

A 16-16-8 fertilizer will be applied at a rate of 250 pounds per acre. Depending upon terrain at specific locations, fertilizer will be applied by a spreader pulled by a tractor or will be broadcast by hand. Organic matter or mulch will not be applied. The agronomic procedure will include tilling and drill seeding, to be performed by a snowcat pulling a tilling/seeding machine. Depth of tilling will be three inches. Broadcast seeding by hand will be performed on steeper slopes. Any contaminated material (i.e. soil contaminated with oil) will be removed to an approved solid waste landfill.

Contingency Reclamation

In the unlikely event of Kennecott failing to continue the construction project following the completion of Phase I, Kennecott will return the disturbed area to native vegetation. Details of this contingency reclamation plan are provided below.

TABLE 3

SITE RECLAMATION ESTIMATE FOR BOND ESTIMATE

Phase I

<u>Item</u>	<u>Cost/Acre</u>	<u>Cost</u>
Final Site Preparation (Dozer) \$800/day x 1 day/20 acres	\$ 40.00 X163 acres	\$ 6,520
Seed Mix (drill) 19.0 PLS/acre x 15.84/PLS	\$301.00 X155 acres	\$46,655
See Mix (broadcast) 38.0 PLS/acre x 15.84/PLS	\$602.00 X8 acres	\$ 4,816
Fertilizer 250 pounds/acre x \$0.1152/pound	\$ 28.00 X163 acres	\$ 4,694
Mulch 2000 lbs/acre x \$50/ton	\$ 50.00 X163 acres	\$ 8,150
Equipment Rental (Tractor & Drill) \$300/day x 1 day/29 acres	\$ 15.00 X155 acres	\$ 2,325
Fuel	\$ 0.50 X155 acres	\$ 78
Equipment Service and Maintenance	\$ 1.90 X155 acres	\$ 155
General Manpower \$50/day x 1 day/20 acres	\$ 7.50 X163 acres	\$ 1,223
Equipment Operator, Dozer \$148.10/day x 8.15 day		\$ 1,207
Equipment Operator, Tractor \$148.10/day x 5.34 days		\$ 791
Broadcast Seeding Manpower \$22.80/hour x 4 hours		\$ 91
Miscellaneous	\$ 6.13 X163 acres	\$ 1,000
Subtotal		\$77,705
Contingency (10%)		\$ 7,771
Total		\$85,487
Escalation at 1.62%		\$86,860